

LG-05IR4T94C-557F-B-T

DATA SHEET

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DATE : 2020/03/03
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Approved By:

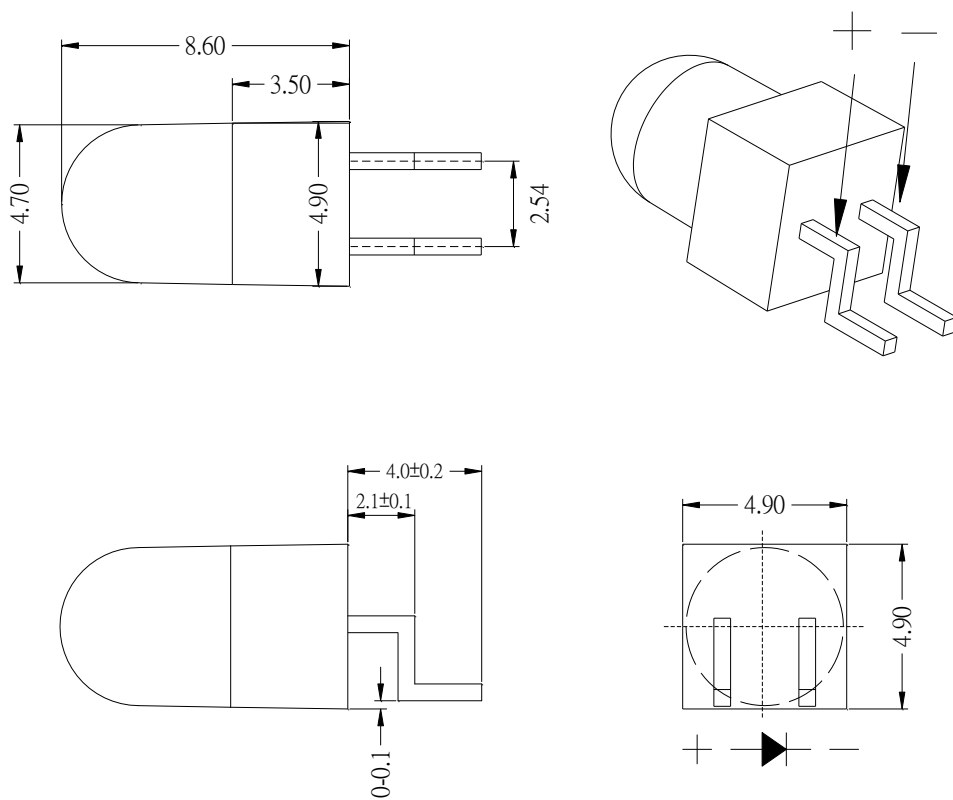
Checked By:

Prepared By:

Features

- ◆ Pb free product—RoHS compliant 无 Pb 产品，符合 ROHS 标准
- ◆ Low power consumption, High efficiency 低功耗、高效率
- ◆ General purpose leads 通用性好
- ◆ Reliable and rugged 可靠性好、坚固
- ◆ Long life – solid state reliability 寿命长
- ◆ Radiant angle: 10° 发光角度 10°

Package Dimension



Part NO.产品型号	Chip Material 晶片材质	Lens Color 胶体颜色
LG-05IR4T94C-557F-B-T	AlGaAs	Blue Transparent

Notes:

1. All dimensions are in millimeters.
所有尺寸单位为：毫米
2. Tolerance is $\pm 0.20\text{mm}$ unless otherwise noted.
尺寸未标示公差部分的尺寸公差为 ± 0.2 毫米

Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.	Unit
Power Dissipation 耗散功率	150	mW
Continuous Forward Current 正向电流	100	mA
Peak Forward Current ^{*3} 脉冲电流	1.0	A
Reverse Voltage 反向电压	5	V
Operating Temperature 操作温度	-40°C to + 85°C	
Storage Temperature 储存温度	-45°C to + 100°C	
IR Reflow Temperature 回流焊温度	250°C for 10 Seconds	

1. Storage: 存储

The storage ambient for the LEDs should not exceed 70% relative humidity.

LED 灯存储环境湿度不得超过 70%。

It is recommended that LEDs out of their original packaging are used within three months.

建议 LED 不开封情况下在三个月内使用

It is recommended that LED be used in 168hrs after opening the package, If extended, use 70±5°C before baking more than 12hrs

建议 LED 在开封后 168hrs 使用完成，若超时，使用前需使用 70±5°C 温度烘烤除湿 12hrs 以上。

2. Precautions in handling: 预防措施处理

- When soldering, leave 2mm of minimum clearance from the resin to the soldering point.
焊接时，尽可能使胶体与支架之间的长度不小于 2mm
- Dipping the resin to solder must be avoided.
不得将胶体浸泡在锡炉中
- In soldering, do not apply any stress to the lead frame particularly when heated.
在高温焊接时，避免对支架施加外力
- When forming a lead, make sure not to apply any stress inside the resin.
在高温焊接时，避免对胶体施加外力

3. Peak Forward Current:

Condition for is I_{FP} pulse: Pulse Width≤100μs and duty≤1%.

脉冲电流使用条件为：占空比为≤1%，脉宽为≤100μs

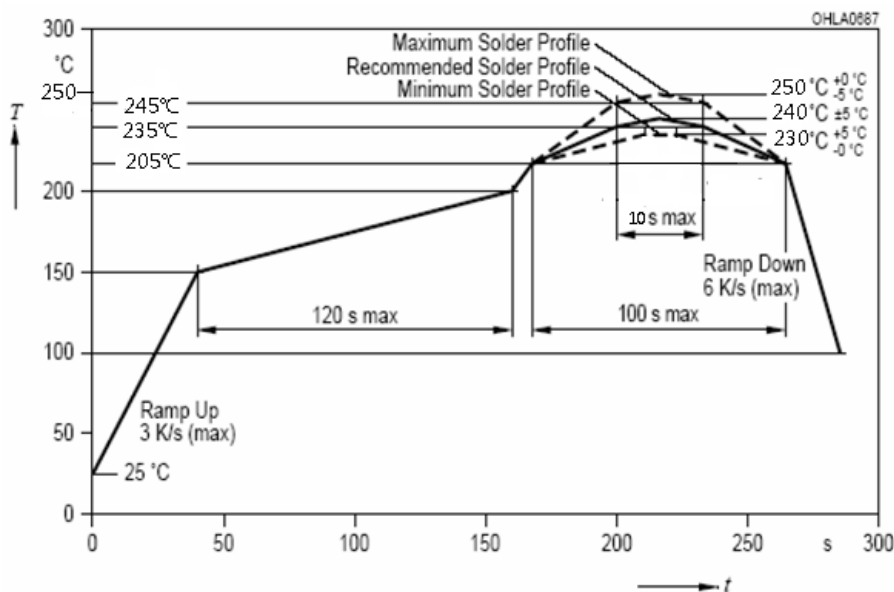
Electrical Optical Characteristics at Ta=25°C

Parameter 参数	Symbol	Min.	Typ.	Max.	Unit	Test Condition 测试条件
Radiant Intensity 辐射强度	I _e	185	240	312	mW/sr	I _F =50mA (Note 1,3)
Viewing Angle 发光角度	2θ _{1/2}	5	10	15	deg	(Note 2)
Peak Wavelength 峰值波长	λ _p	---	940	---	nm	I _F =20mA
Spectral Line Half- Width 半波宽	Δλ	---	50	---	nm	I _F =20mA
Forward Voltage 正向电压	V _F	---	1.35	1.65	V	I _F =50mA
Reverse Current 反向电流	I _R	---	---	100	μA	V _R =8V

Note:

- Point sources of the amount of radiation per unit time in a given direction within the unit solid Angle radiated energy.
点光源在单位立体角内所辐射出的光功率的大小
- θ_{1/2} is the off-axis angle at which the Radiant Intensity is half the axial Radiant Intensity.
半功率角度为辐射强度在 50% 的时候的夹角
- The I_e test error is based on our test
辐射强度测试误差以敝司的测试作为标准。

Suggest IR Reflow Condition For Lead Free: 建议回流焊曲线图



Typical Electrical / Optical Characteristics Curves 光电特性曲线图 (25°C Ambient Temperature Unless Otherwise Noted) 室温条件下

Fig.1 Spectral Distribution

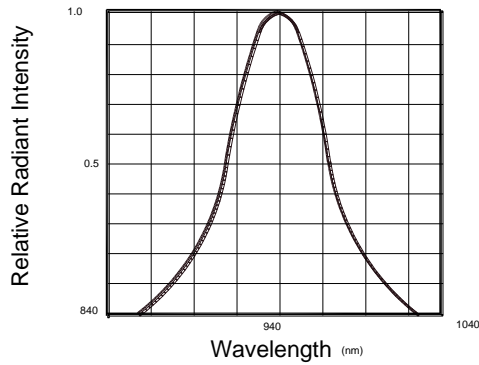


Fig.2 Forward Current Vs Ambient Temperature

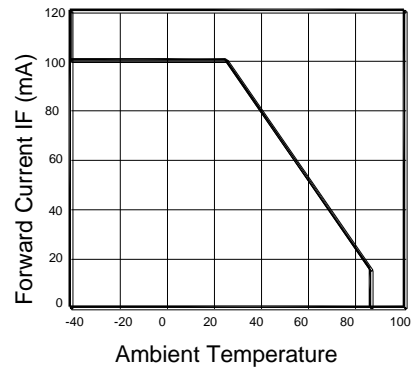


Fig.3 Forward Current Vs

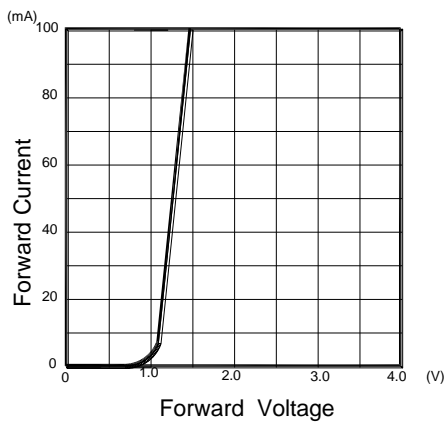


Fig.4 Relative Radiant Intensity Vs Ambient Temperature

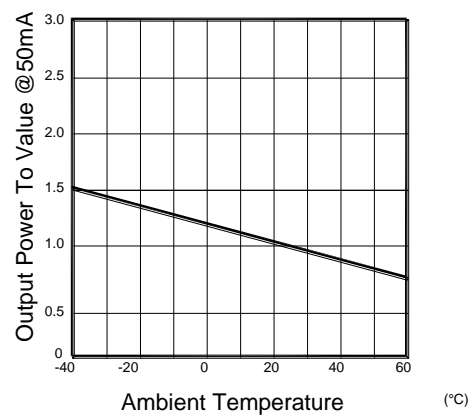


Fig.5 Relative Radiant Intensity Vs Forward Current

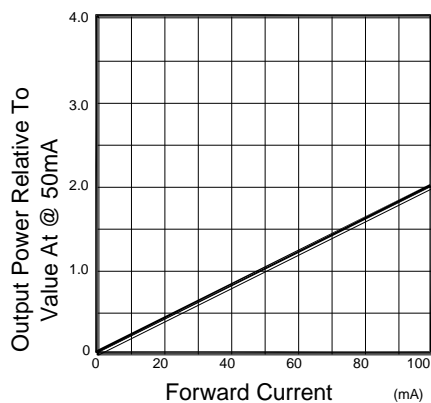
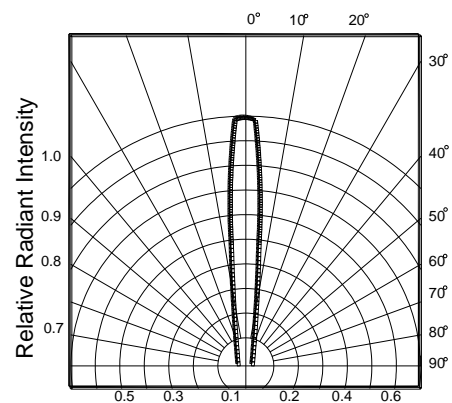
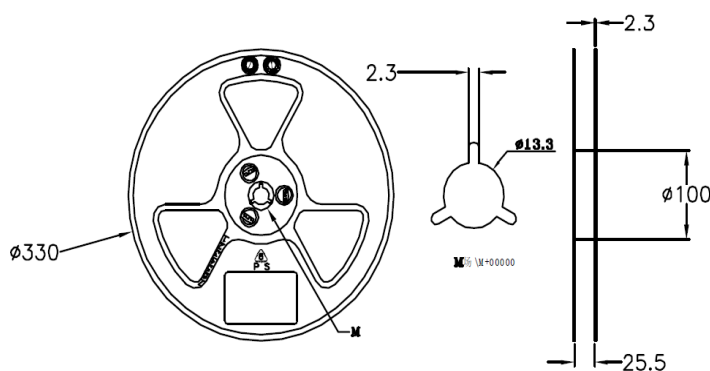
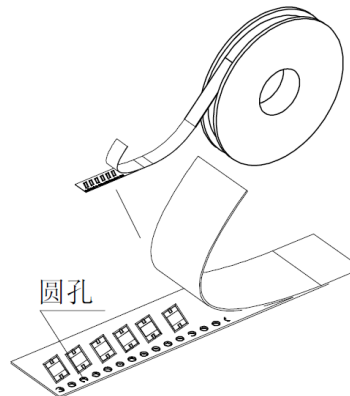
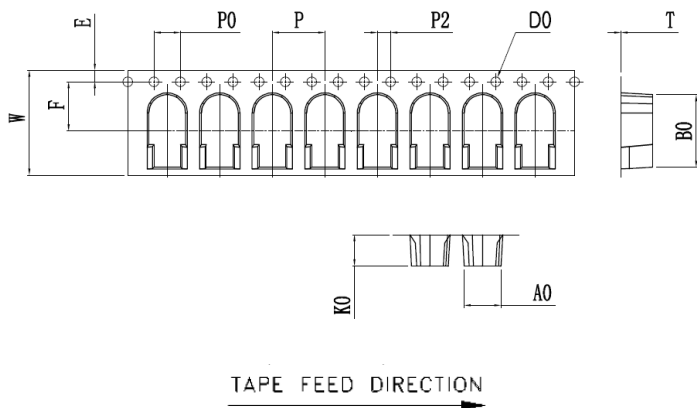


Fig.6 Radiation Diagram



PACKAGE 包装

1. Package Dimensions 包装尺寸



Item	Specification	
	Minum	Maximum
W	15.97	16.3
P	7.9	8.1
E	1.65	1.85
F	7.4	7.6
D	1.5	1.6
P0	3.9	4.1
P0x10	39.8	40.2
P2	1.9	2.1
A0	5.2	5.4
B0	10.6	10.8
K0	4.8	5.0

Notes:

1. All dimensions in millimeters.
2. All dimensions meet EIA-481-C requirements.
3. Cover tape by a heat sealing manner

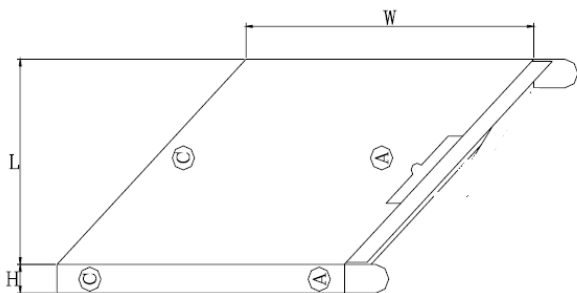
1. 所有尺寸单位为：毫米
2. 所有尺寸均按照 EIA-481-C 标准
3. 胶带封带模式为热封

2. Package SPEC: 包装规格

1500pcs per reel 1500pcs/卷

5 reel per inner carton/Total 7500pcs per inner carton

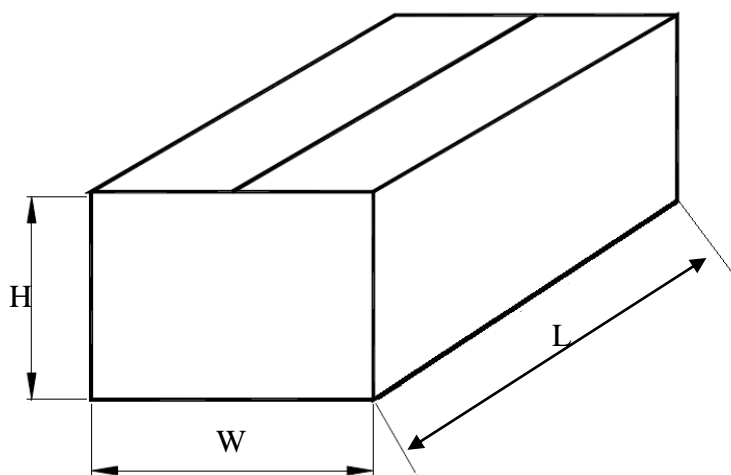
5 卷/箱, 7500pcs/箱



Item	Specification	
	Minmum	Maximum
L	335	345
W	329	339
H	93	103

4 inner carton per outer carton/Total 30000pcs per outer carton

每个外箱装 4 盒, 每箱总数 30Kpcs



Item	Specification	
	Minmum	Maximum
L	435	445
W	355	365
H	355	365

Infrared Emitting Diode Specification

- Commodity: Infrared emitting diode
- Intensity Bin Limits (At 50mA)

BIN CODE	Min.(mW/sr)	Max.(mW/sr)
43	185	240
44	240	312